

**IN RE:**  
**RONALD A. KATZ**  
**SERIAL NO: 10/724,406**

**FOREIGN PATENT:**

**Sho 50-133892 JAPAN**

# Certificate of Accuracy

Translation 2096

I, Thomas Wilds, do hereby depose and state that I am a translator of the Japanese language into English by profession, that I am thoroughly conversant with these languages, that I have made the attached translation of Japanese Patent Application Public Disclosure Sho 50-133892, that I have identified each page of the translation with my identification number 2096, and that the translation is a true and correct English version of the Japanese original to the best of my knowledge and belief.

I hereby declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

Executed on January 18, 1993 at Greenwich CT.



Thomas Wilds

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TO: Director General Of The Patent Office, Esq.

**1. Title Of The Invention.**

Automatic Travel Ticket Vending Machine

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**5. List Of Appended Documents.**

- |                        |                 |
|------------------------|-----------------|
| (1) Patent Application | 1 document copy |
| (2) Specification      | 1 document      |
| (3) Drawings           | 1 document      |
| (4) Letter of Attorney | 1 document      |

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### **Specification**

#### **1. Title Of The Invention.**

Automatic Travel Ticket Vending Machine

#### **2. Scope Of Patent Claim.**

Automatic travel ticket vending machine furnished with:  
(a) destination selection buttons that select the destination, (b) display apparatus that displays the appropriate flights after selection by the said destination selection buttons, (c) input apparatus for designating the said flight, and (d) ticket issuing apparatus for issuing passenger tickets reflecting the content designated in the said input apparatus.

#### **3. Detailed Explanation Of The Invention.**

This invention relates to an automatic travel ticket vending machines, for example to such as automatic airline ticket vending machines, wherein automatic vending can be achieved by communication of various kinds of data with a central processing unit.

Priorily the purchase of airline tickets has been done through travel agencies (dealers). That is, when customers communicate the required airline ticket information (for example such as destinations, dates and flights) to agencies, the agencies input that information to a central processing unit by means of terminal devices respectively installed therein, and the processing apparatus decides whether the airline tickets desired can be purchased, that is whether seats are available or not, and when they can be purchased it outputs the information required for airline ticket preparation to the agencies (the terminal devices). The agencies then transcribe the said outputted information, prepare the airline tickets and sell them. Thus airline ticket sales have thus not been automated priorily. As a consequence the procedures required for such as communicating with the agencies were inconvenient in cases of urgency, and automation was also desirable from the standpoint of cost economies such as in personnel expenses.

Automatic vending is already being done with automatic vending machines in place at airports for partial airline tickets when empty seats are available. Using an airline ticket between Tokyo and Osaka as an example, when seats are available at 20 minutes before departure, information on the available seats is stored in automatic vending machines (by such as the airline company) and is displayed by the automatic vending machines. When a customer sees the available seating

display in an automatic vending machine and finds a flight suiting his convenience and inserts the required fare, an airline ticket is obtained from the vending machine. However, such automatic vending machines are not connected to a central information processor, so that they cannot perform work such as making reservations by designating a flight number.

Because of this, the main object of this invention is to offer an automatic airline ticket vending machine having functions identical to those in travel agency work.

The characterizing features of the above stated object and other objects will be made much clearer from the following detailed explanation made with reference to the drawings.

Fig. 1 is an external view of the service portion FCU of an automatic airline ticket vending machine of an example of this invention. Fig. 2 illustrates a block diagram of this example, and has the same reference codes as in Fig. 1 for portions that are identical. Its operation and working will be explained below with reference to Fig. 1 and Fig. 2. Further, this example illustrates only tickets for a specific day.

Service portion FCU is connected to the central processing unit CPU by means of four connection terminals P1 to P4.

When one desired destination button 1 is pressed among a plurality of destination buttons 1, .... 1 on which a plurality of destinations are individually displayed, a destination selection signal showing the destination displayed on that button is input



to the central processing unit CPU via terminal P1. The central processing unit CPU identifies the desired destination by means of this destination selection signal, and displays all flight numbers by departure time among the flights departing to the destination in the 1 day as well as information on whether seats are filled or available corresponding to the respective flights on flight display portion 2, by means of flight information store portion 3 which comprises terminal P2 and for example such as a flip-flop. The customer inputs the flight number desired from among the flight numbers displayed as being available in display portion 2 by means of flight number input portion 4, comprising for example such as a ten keys and a number input key. The number signal from input portion 4 is inputted to central processing unit CPU via terminal P3 while the said store portion 3 is cleared.

When the flight number has been inputted, the central processing unit CPU sends the ticket issuing information including the destination, fare, date and flight number via terminal P4 as input to AND gate 10 on the one hand, while it is also input to relational operation portion 9 and fare insertion command display portion 17 is displayed for example by being lit up. The customer then inserts the specified amount of paper money in paper money insertion opening 5 following the display of fare insertion command display portion 17. The paper money inserted into paper money insertion opening 5 is

given a counterfeit check and a type check by known bill checker 6 and is counted, after which the total amount of the inserted bills is input in relational operation portion 9, while being displayed in amount inserted display portion 7 via amount store portion 8 comprising such as a flip-flop for example.

Relational operation portion 9 compares the total amount of money with the fare from the central processing unit CPU which was input as said before, and when the total amount is more than or equal to the fare it activates AND gate 10 and the ticket issuing information from the central processing unit CPU is inputted to ticket issuing apparatus 12. When the total amount is more than the fare, then change mechanism 11 computes the required change in response to a signal from relational operation portion 9. Ticket issuing mechanism 12 issues an airline ticket imprinted as required based on the ticket issuing information from AND gate 10. The airline ticket from ticket issuing mechanism 12 and any change from change mechanism 11 are respectively retained in suitable positions (not illustrated) that can be observed through peek windows 18 and 19 in Fig. 1

After observing and verifying the retained airline ticket and change through peek windows 18 and 19 and finding that the airline ticket is as required and the change is proper, the customer presses the verification button 13 corresponding to

the said pressed destination button 1. A verification (ticket issuance command) signal from verification button 13 is transmitted to change mechanism 11 and the said retained change discharges into change receiving opening 14, it is further transmitted to ticket issuing mechanism 12 so that the said retained ticket discharges into airline ticket receiving opening 15, and meanwhile such as the said amount store portion 8 and relational operation portion 9 are cleared and the vending machine is restored to its original state. On the other hand, upon completion of the ticket issuance operation, ticket issuance counter 16 connected with the central processing unit CPU counts the full seats and then produces full seat displays for those flights that are full.

In the example described above, the service portion FCU is connected to the central processing unit CPU, which enables it to communicate with the central processing unit CPU, and also enables purchase of reserved airline tickets as well as available seats.

Further, although the automatic vending machine was explained in the example described above only in terms of airline tickets for the flight day, it is a matter of course that this invention will not be delimited thereby.

By following this invention as above, an automatic passenger ticket vending machine will be attained having functions identical to the work of travel agencies.

#### 4. Brief Explanation Of The Drawings.

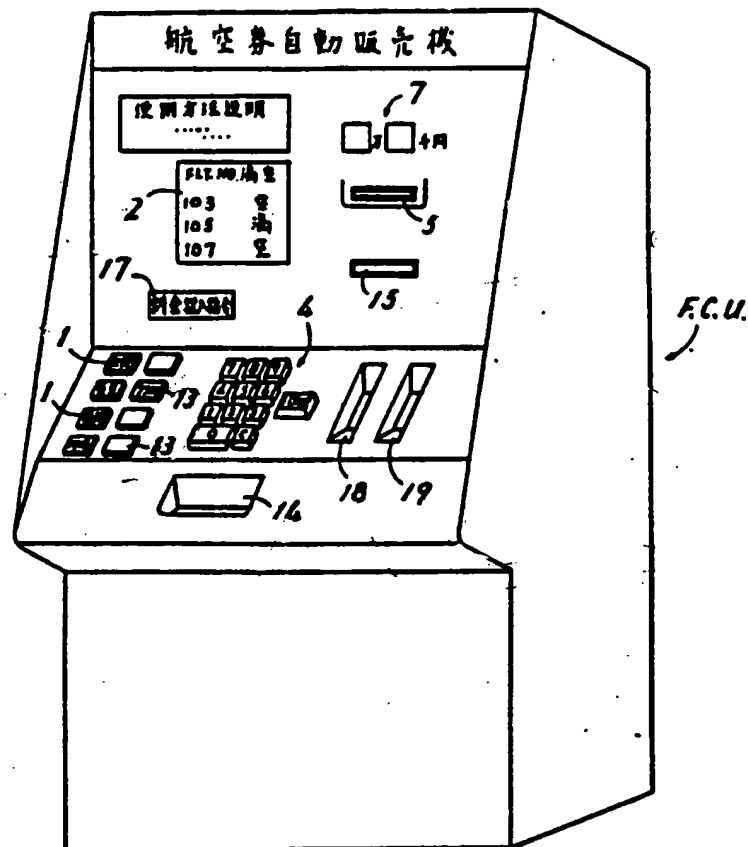
Fig. 1 is an external view of the service portion of the airline ticket automatic vending machine in an example of this invention, and Fig. 2 is a block diagram of the example in Fig. 1.

In the drawings, FCU is the service portion, CPU is a central processing unit, 1 is a destination button, 2 is a flight display portion, 3 is a flight information store portion, 4 is a flight number input portion, 5 is a paper money insertion opening, 6 is bill checker (including computation), 7 is an amount inserted display portion, 8 is an amount store portion, 9 is a relational operation portion, 10 is an AND gate, 11 is a change mechanism, 12 is a ticket issuing device, 14 is a change receiving opening, 15 is an airline ticket receiving opening, 16 is a ticket issuance counter, 17 is a fare insertion command display portion, 18 and 19 are peek windows, and P1 to P4 are connecting terminals.

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Fig. 1



[Captions from top:]

Automatic Airline Ticket Vending Machine

Explanation Of How To Use The Machine

[7:] 10,000 1,000 Yen

FLT No. Full Available

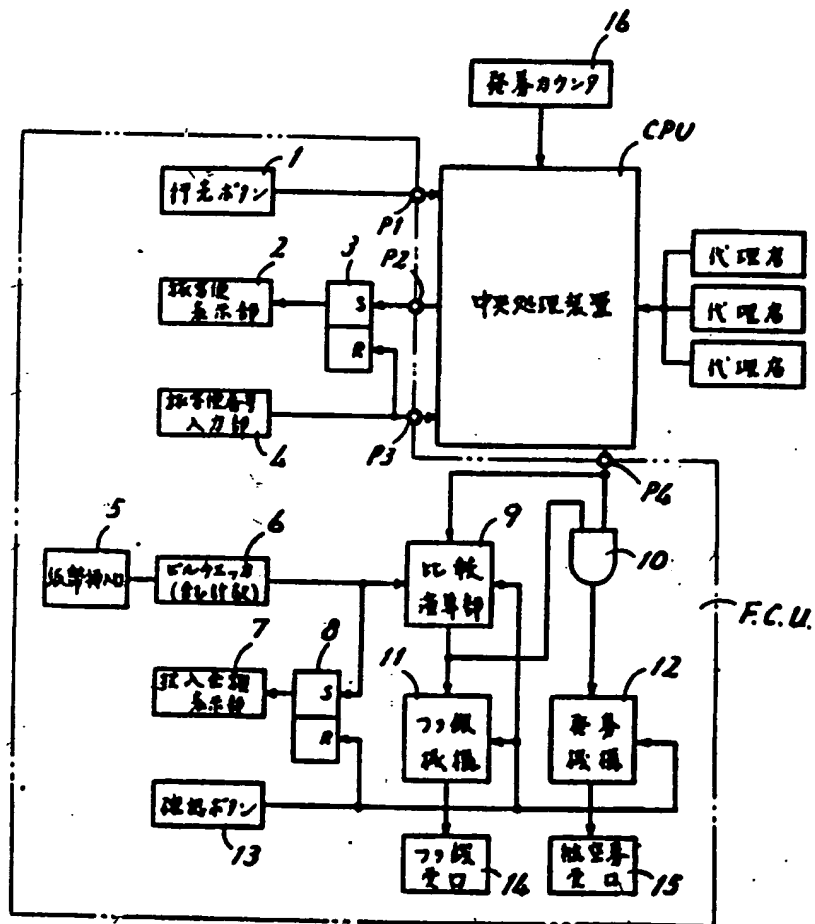
103 Available

105 Full

107 Available

Fare Insertion Command

Fig. 2



**Fig. 2 Continued**

- 1 Destination Button
- 2 Flight Display Portion
- 3 Flight Information Store Portion
- 4 Flight Number Input Portion
- 5 Paper Money Insertion Opening
- 6 Bill Checker (Including Computation)
- 7 Amount Inserted Display Portion
- 8 Amount Store Portion
- 9 Relational Operation Portion
- 10 AND Gate
- 11 Change Mechanism
- 12 Ticket Issuing Device
- 13 Verification Button
- 14 Change Receiving Opening
- 15 Airline Ticket Receiving Opening
- 16 Ticket Issuance Counter

CPU Central Processing Unit

[At right of CPU:]

Agency

Agency

Agency

**End.**